

Appendix E:

Dewatering, Traffic Control & Utility Conflicts

Pipe Dewatering Costs

				Resource Comparisons		
				Success	Success	Success
Description	Unit	Tabula 9/05 cost based Seattle ENR CCI Index	Recommended Costs for input into Tabula	Trench Sump Dewatering (2 6" pumps attended)	One Side Wellpoint Inst & Rmv per LF	Wellpoint Pump Operation
Daily Rate				\$1,271		\$1,682
Lineal Foot Cost to Install					\$50	
Dewatering				Production Rate		
8-12" Pipe Diameter						150 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$24	\$20	\$8	
Wellpoint Dewatering		LF	\$59	\$60		\$61
14-21" Pipe Diameter						120 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$24	\$20	\$11	
Wellpoint Dewatering		LF	\$71	\$65		\$64
24-30" Pipe Diameter						88 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$24	\$20	\$14	
Wellpoint Dewatering		LF	\$82	\$75		\$69
36-48" Pipe Diameter						64 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$35	\$30	\$20	
Wellpoint Dewatering		LF	\$94	\$80		\$76
54-66" Pipe Diameter						48 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$35	\$30	\$26	
Wellpoint Dewatering		LF	\$106	\$95		\$85
72-84" Pipe Diameter						32 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$47	\$45	\$40	
Wellpoint Dewatering		LF	\$118	\$110		\$103
90-96" Pipe Diameter						24 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$47	\$55	\$53	
Wellpoint Dewatering		LF	\$129	\$125		\$120
108-144" Pipe Diameter						12 Pipe Daily Install Production Rate
Trench Sump Dewatering		LF	\$47	\$75	\$106	
Wellpoint Dewatering		LF	\$141	\$150		\$190

Pipe Traffic Control Costs

Description	Unit	Tabula Dec 1999 Costs (Seattle ENR = 7137)	Tabula 9/05 cost based Seattle ENR CCI Index	Recommended Costs for input into Tabula	Resource Comparisons	
					WSDOT June/2005	KC Wage Rate
Hourly Rate	HR				\$40	\$48
Traffic Control						
8-21" Pipe Diameter						
Average (1 Flagger)	LF	\$5	\$6	\$8	\$8	\$9
Heavy/Special (2 Flaggers)	LF	\$10	\$12	\$16	\$15	\$19
24-42" Pipe Diameter						
Average (1 Flagger)	LF	\$10	\$12	\$12	\$11	\$13
Heavy/Special (2 Flaggers)	LF	\$20	\$24	\$24	\$21	\$26
48-66" Pipe Diameter						
Average (1 Flagger)	LF	\$15	\$18	\$18	\$16	\$19
Heavy/Special (2 Flaggers)	LF	\$30	\$35	\$36	\$32	\$39
72-96" Pipe Diameter						
Average (1 Flagger)	LF	\$20	\$24	\$25	\$24	\$29
Heavy/Special (2 Flaggers)	LF	\$40	\$47	\$50	\$48	\$58
108-144" Pipe Diameter						
Average (1 Flagger)	LF	\$20	\$24	\$50	\$48	\$58
Heavy/Special (2 Flaggers)	LF	\$40	\$47	\$100	\$96	\$116

Production Rate

50	1/2 of Pipe Install production rate to account for Surface Restoration & misc work
36	1/2 of Pipe Install production rate to account for Surface Restoration & misc work
24	1/2 of Pipe Install production rate to account for Surface Restoration & misc work
16	2/3 of Pipe Install production rate to account for Surface Restoration & misc work
8	2/3 of Pipe Install production rate to account for Surface Restoration & misc work

Pipe Utility Conflict Costs

Description	Unit	Tabula 9/05 cost based Seattle ENR CCI Index	Recommended Costs for input into Tabula	Hidden Lake Utility Conflicts	SE Lake Sammamish 3/30/05	Port Angles Fairmount Pump Station	Tacoma Second Supply Line 2/11/03	Utility Conflict at 20% of pipe price
		1.176						0.2
Utility Conflict Cost								
8-12" Pipe Diameter								
Average	LF	\$24	\$25					\$8
Complex	LF	\$47	\$45			\$2.68		\$16
14-18" Pipe Diameter								
Average	LF	\$35	\$35					\$10
Complex	LF	\$71	\$70					\$20
20-30" Pipe Diameter								
Average	LF	\$47	\$45	\$19.74	\$3.80	\$3.93		\$23
Complex	LF	\$94	\$90					\$46
36-42" Pipe Diameter								
Average	LF	\$59	\$55					\$33
Complex	LF	\$118	\$115					\$66
48-54" Pipe Diameter								
Average	LF	\$71	\$70					\$50
Complex	LF	\$141	\$140					\$100
60-66" Pipe Diameter								
Average	LF	\$94	\$90				\$2.71	\$63
Complex	LF	\$188	\$185					\$126
72-78" Pipe Diameter								
Average	LF	\$118	\$115					\$92
Complex	LF	\$235	\$230					\$184
84-96" Pipe Diameter								
Average	LF	\$141	\$140					\$140
Complex	LF	\$282	\$275					\$280
108-144" Pipe Diameter								
Average	LF	\$176	\$170					\$361
Complex	LF	\$353	\$345					\$722